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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,424

12/10/2003

Makoto Oikawa

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EXAMINER

KHAN, USMAN A

ART UNIT

PAPER NUMBER

2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/23/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/733,424	OIKAWA, MAKOTO	
	Examiner	Art Unit	
	Usman Khan	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003 and 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2003 and 24 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 3 is/are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 3 defines a program embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed

program can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States:

Claims 1 - 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Sasakura (US patent No. 5,995,144).

Regarding **claim 1**, Sasakura teaches that it is well known in the art to have a focus detection device comprising: a solid-state image sensing device including a first photoelectric conversion element array which photoelectrically converts a first light beam passing through a first area of an exit pupil of a photographing optical system (figure 2 and column 1 lines 26 *et seq.*), and a second photoelectric conversion element array which photoelectrically converts a second light beam passing through a second area of the exit pupil which is different from the first area (figure 2 and column 1 lines 26 *et seq.*); and a computing device which detects a focus state of the photographing optical system by computing a correlation between a first image signal which is an image signal from the first photoelectric conversion element array and a second image signal (Figure 4; column 2 lines 28 *et seq.*) which is an image signal from the second photoelectric conversion element array in accordance with a position of a focus

detection area in an image sensing frame on the basis of a ratio between a shift amount of a focus detection opening pupil (figures 3 and 4; column 2 lines 28 *et seq.*), formed when limitation is imposed by an exit window of the photographing optical system, with respect to an optical axis (it is inherent that the light inputted will be limited by the pupil), and a width of the focus detection opening pupil (it is inherent that the shifted light will be limited by the pupil).

Regarding **claim 2**, Sasakura teaches that it is well known in the art to have a focus detection method wherein a first light beam passing through a first area of an exit pupil of a photographing optical system is photoelectrically converted by a first photoelectric conversion element array (figure 2 and column 1 lines 26 *et seq.*), a second light beam passing through a second area of the exit pupil which is different from the first area is photoelectrically converted by a second photoelectric conversion element array (figure 2 and column 1 lines 26 *et seq.*), and a focus state of the photographing optical system is detected by computing a correlation between a first image signal which is an image signal from the first photoelectric conversion element array and a second image signal which is an image signal from the second photoelectric conversion element array (Figure 4; column 2 lines 28 *et seq.*) in accordance with a position of a focus detection area in an image sensing frame on the basis of a ratio between a shift amount of a focus detection opening pupil (figures 3 and 4; column 2 lines 28 *et seq.*), formed when limitation is imposed by an exit window of the photographing optical system, with respect to an optical axis (it is inherent that the light

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inputted will be limited by the pupil), and a width of the focus detection opening pupil (it is inherent that the shifted light will be limited by the pupil).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 – 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasakura (US patent No. 5,995,144) in further view of Tokunaga (US patent No. 7,102,675).

Regarding **claim 3**, as mentioned above in the discussion of claim 2 Sasakura teaches all of the limitations of the parent claim.

However, Sasakura fails to teach a program causing a computer to execute a focus detection method. Tokunaga, on the other hand teaches a program causing a computer to execute a focus detection method.

More specifically, Tokunaga teaches a program causing a computer to execute a focus detection method (column 8 lines 1 *et seq.*).

Therefore, one of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Tokunaga with the teachings

of Sasakura to store the program on the required device and reduce the dependency on other devices and to reduce the overall cost of the system.

Regarding **claim 4**, as mentioned above in the discussion of claim 3 Sasakura in further view of Tokunaga teaches all of the limitations of the parent claim. Additionally, Tokunaga teaches a storage medium computer-readably storing a program (column 8 lines 1 *et seq.*).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nagahata et al. (US patent No. 5,825,016) teaches a focus detection device that correlates two separate sets of images from the imager.

Ishida et al. (US patent No. 5,202,555) teaches a focus detection device that correlates two separate sets of images from the imager.

Eguchi et al. (US patent No. 4,523,829) teaches a focus detection device that correlates two separate sets of images from the imager.

Tsunekawa et al. (US patent No. 4,647,174) teaches a focus detection device that correlates two separate sets of images from the imager.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usman Khan whose telephone number is (571) 270-

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1131. The examiner can normally be reached on Mon-Thru 6:45-4:15; Fri 6:45-3:15 or Alt. Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Usman Khan
02/08/07
Patent Examiner
Art Unit 2622



LIN YE
PRIMARY PATENT EXAMINER